

**RISK ASSESSMENT:
EXISTING LAND USES AND FUTURE DEVELOPMENT TRENDS
IN HAZARD AREAS**

The *Nassau County Comprehensive Plan* is a guide for the overall future growth and development of the County in support of local land use planning and decision-making. It was first prepared in 1998; an update was prepared in 2004. The Comprehensive Plan was reviewed for information regarding land uses and development trends, and is the source of information provided within this section. In addition, a telephone interview with a representative of the Nassau County Planning Commission was conducted in the fall of 2005 for additional information.

Historic

The most significant surge of population and development in Nassau County occurred after World War II. Veterans returned home and sought safe, affordable, pleasant communities in which to raise their families. New housing developments began to proliferate throughout Nassau County at an astounding rate. An advertisement published in *Newsday* on May 7, 1947 offered 2,000 homes for \$60 a month in a new development called “Levittown,” located on the Hempstead Plains where potatoes had previously grown. By the end of the month, more than 6,500 veterans had applied for the new housing units and the floodgates were opened for the population wave that changed Nassau County, almost overnight, from a farming community into the nation’s first and largest suburb. Levittown is generally regarded as the prototype of affordable suburban housing during the era.

The construction of east-west oriented roads and parkways during the 1920-1940s made much of Nassau County accessible by automobile. Many new land uses were oriented towards automobile access, and land use developments which did not need the density of uses required by other modes of transportation. The availability and construction of centralized water and sewer services enable an intensification of land use development throughout the central and southern portion of the County – including office parks, industrial uses and other higher density commercial uses. Most of the north shore communities relied upon (and continue to rely on) wells and septic systems which were not able to support high concentrations of land use development.

By the 1950, Nassau County held the distinction of having the largest population and being the fastest-growing suburban county in the nation. Since the late 1950s, building activity has slowed considerably. The County’s current land use arrangement largely reflects the development pattern of its past. Many of the north shore communities continue to maintain strict zoning and land use regulations which limit land use densities. These areas also continue to lack centralized sewer systems which can support more intensive development. The central and southern portions of the County have an established roadway and infrastructure system which continue to support a greater intensification of land uses.

Existing Land Use

Nassau County contains a wide variety of land uses and densities. Generally, the north shore communities consist of low density residential uses, supplemented by small-scale commercial and

office uses, typically located in villages. In contrast, the central and southern portions of the County tend to be more diverse both in terms of types and densities of land uses. As a whole, the County land area is generally comprised of commercial, industrial, institutional, residential, public and semi-public areas, facilities, sewage systems and parklands, including critical natural resources such as wetlands, aquifers, shorelines, water bodies, open spaces, vegetation and nature preserves.

Land use within the County is predominantly single-family residential housing, commercial and industrial. Because many of the communities within Nassau County are built-out, one of the opportunities to create new housing and mixed uses is in the redevelopment of vacant or underutilized parcels.

Residential development is the predominant land use in Nassau County. In 1997, approximately 87% of tax parcels and 55% of the total land area in the County was classified as residential. Single-family homes represent the most dominant housing type within the overall residential land use category, followed by two-family and multi-family housing units. In 1997, the Nassau County Tax Assessor's office classified approximately 81% of all parcels in the County as single-family residential dwellings, 5.1% of all parcels as two-family dwellings and less than 1% of all parcels as three-family or multi-family dwellings. Since households in Nassau County have higher than average disposable incomes, market research generally supports the need for and sustainability of such additional retail development.

The density range of residential units varies throughout the County. Approximately 21,100 acres in the County are classified as estates (1 dwelling unit per 5 acres) and low density residential (1 dwelling unit per acre). Most of these lower density areas are located within the northern half of the County. Approximately 73,100 acres in the County consists of residential lands with a density of between 2 to 10 dwelling units per acre. These residential uses are generally located within the central and southern half of the County. The highest residential density category totals approximately 5,900 acres and is generally located within the County's condominium developments. This high density category includes both multi-family properties and those properties having a density of 11 or more dwelling units per acre.

Four percent of the total parcels in the County were classified as commercial uses, excluding commercial uses with a residential component, such as apartments.

The land area in the County which is devoted to office uses is expected to increase somewhat in the future due to growth in the County's employment, combined with the further expansion of service industries in the economy and the relocation of companies from New York City to the suburbs. Demand for such office space should be modest and is not likely to increase until existing office space has been more fully utilized and vacancy rates decline.

While most industrial areas are scattered throughout the County, several concentrations of industrial activity are prevalent in communities such as: Freeport, Plainview, Bethpage, New Cassel, Floral Park, Glen Cove, Mineola and Port Washington.

Approximately 20,000 of the 22,000 parcels were designated as residential vacant land. It is estimated that approximately 15,000 acres are considered vacant in the County. For tax assessment purposes, vacant land was defined as property that is not in use, in temporary use or without permanent improvement.

Tables in Appendix A present, on a community-specific basis, existing development by: type, number of parcels, value of improvements, and parcel area by type of hazard.

Future Development Trends - Overview

The future land use plan for Nassau County is based on the County's existing and established downtowns and Centers, preferred development patterns, existing and proposed transportation systems and environmental features in the County. For the future, the County Comprehensive Plan recommends, in general:

- Higher intensity development generally located in areas which currently have a more dense or suburbanized character and contain adequate infrastructure, especially where such areas have access to mass transit, major roads, public sanitary sewers and water supply.
- Lower intensity development is recommended for those areas of the County which presently have a low or very low density character and more limited infrastructure capacity.
- Development of vacant parcels
- Redevelopment of currently developed parcels (wherein a site with existing buildings and/or other infrastructure is developed with new uses, new buildings, new infrastructure, or new activities)
- Redevelopment of Brownfields sites
- Transit Oriented Development
- Increased retail development. Households in Nassau County have higher than average disposable incomes, and market research generally supports the need for and sustainability of additional retail development.
- Increased office development. The Comprehensive plan notes a growth in the County's employment combined with the further expansion of service industries in the economy and relocations of companies from New York City to the suburbs will continue to drive the need for new office space in the future. Demand is expected to be modest and not likely to increase until existing vacant office space has been more fully utilized.

Future Development Trends – Coastal Erosion.

Development within mapped CEHAs is currently regulated because in these areas buildings and structures could be damaged by erosion and flooding. NYCRR Part 505 provides procedural requirements for development, new construction, and erosion protection structures.

Through coordination in the fall of 2005 for preparation of this mitigation plan, the Nassau County Planning Commission indicated that in the recent years there has been, and continues to be, a high demand for shorefront and canal areas, where development and redevelopment pressures are high for multi-family dwellings (such as townhouses row houses). This means that over time, assets at risk in coastal erosion hazard areas could increase given existing regulations and development trends. However, the jurisdictions which were noted as tending to have the most new development were not communities with mapped CEHAs. And, while an increased number of assets could be susceptible, they will be built to a code that will offer a certain degree of protection from most frequent events.

Appendix A depicts the number and acreage of vacant parcels in erosion hazard areas for Nassau County jurisdictions with mapped CEHAs. Vacant parcels in hazard areas could theoretically be developed in the future under existing regulations.

Future Development Trends – Wave Attack

Development within mapped V-zones is currently regulated for communities participating in FEMA's National Flood Insurance Program.

Through coordination in the fall of 2005 for preparation of this mitigation plan, the Nassau County Planning Commission indicated that in the recent years there has been, and continues to be, a high demand for shorefront and canal areas, where development and redevelopment pressures are high for multi-family dwellings (such as townhouses row houses). This means that over time, assets at risk in wave action hazard areas could increase given existing regulations and development trends. However, the jurisdictions which were noted as tending to have the most new development were not communities with mapped V-zones. And, while an increased number of assets could be susceptible, they will be built to a code that will offer a certain protection from most frequent events.

Appendix A depicts the number and acreage of vacant parcels in wave attack hazard areas for Nassau County jurisdictions with mapped V-zones. Vacant parcels in hazard areas could theoretically be developed in the future under existing regulations.

Future Development Trends – Earthquake

The earthquake hazard area encompasses the entire County and is uniform from one jurisdiction to the next. Therefore, future development trends for the earthquake hazard area would be the same as those county-wide, as discussed under "Overview" earlier in this section.

Softer soils can exacerbate the effects of earthquakes. Nassau County contains soil classifications B through E. Class B soils have a moderately low likelihood of amplifying the affects of an earthquake. Class C soils and Class D soils both have a moderate likelihood of amplifying the affects of an earthquake. Areas of Class E soils (soft soil, including fill, loose sand, waterfront, or lake bed clays) are most likely to amplify the effects of an earthquake. Appendix A depicts the number and acreage of vacant parcels of Class E soils for Nassau County jurisdictions. Vacant parcels in these areas could theoretically be developed in the future under existing regulations. The New York State Building Code does have provisions for earthquake resistant design for new construction. While an increased number of assets could be susceptible, they will be built to a code that will offer a certain protection from most frequent events.

Future Development Trends – Flood

Flood hazard areas (for flooding and storm surge) are often areas where development pressures are high, particularly in areas such as Nassau County where the amount of undeveloped land is small and the density of development is high. Individuals, and larger developers, often look toward land along rivers, canals, bays, and the ocean for development because of the passive and active recreational opportunities that they offer.

Development within mapped flood hazard areas is currently regulated for communities participating in FEMA's National Flood Insurance Program.

Through coordination in the fall of 2005 for preparation of this mitigation plan, the Nassau County Planning Commission indicated that in the recent years there has been, and continues to be, a high demand for shorefront and canal areas, where development and redevelopment pressures are high for multi-family dwellings (such as townhouses row houses). This means that over time, assets at risk in flood hazard areas could increase given existing regulations and development trends. Jurisdictions which were noted by the Commission as tending to have the most new development were south shore areas of Freeport, East Rockaway, Oceanside, Bellmore, Merrick and Wantagh - all of which have FEMA-mapped flood hazard areas. While an increased number of assets could be susceptible, they will be built to a code that will offer a certain protection from most frequent events.

Appendix A depicts the number and acreage of vacant parcels in flood hazard areas for Nassau County jurisdictions. Vacant parcels in hazard areas could theoretically be developed in the future under existing regulations.

Future Development Trends – Landslides

In Nassau County, the mapped landslide hazard area (high susceptibility, low incidence) covers roughly one-third of the land in the northern part of Nassau County in the Towns of North Hempstead and Oyster Bay. There are no mapped areas of high susceptibility within the Town of Hempstead.

Through coordination in the fall of 2005 for preparation of this mitigation plan, the Nassau County Planning Commission indicated that most new development is occurring along the southern portion of the County, particularly in the Villages of Freeport, East Rockaway, Oceanside, Bellmore, Merrick and Wantagh - all of which are located outside of mapped areas of high landslide susceptibility.

Appendix A depicts the number and acreage of vacant parcels in landslide hazard areas (high susceptibility, low incidence) for Nassau County jurisdictions. Vacant parcels in hazard areas could theoretically be developed in the future under existing regulations. Many communities within the mapped area of high landslide susceptibility have adopted steep slope ordinances, establishing requirements for new construction that will offer a certain degree of protection from most likely events. The Planning Group indicated that East Hills, Laurel Hollow, Oyster Bay Cove, and Roslyn all have steep slope ordinances as of May 2006.

Future Development Trends – Drought

The drought hazard area encompasses the entire County and is uniform from one jurisdiction to the next. Therefore, future development trends for the drought hazard area would be the same as those county-wide, as discussed under “Overview” earlier in this section.

Future Development Trends – Extreme Winds

The wind hazard area encompasses the entire County and is uniform from one jurisdiction to the next. Therefore, future development trends for the wind hazard area would be the same as those county-wide, as discussed under “Overview” earlier in this section.

Maximum sustained wind speeds are estimated to be approximately 10-20 miles per hour higher in southern Nassau County than in northern Nassau County. While northern areas of the county have more vacant land, development pressures have tended to be higher along southern areas of the County so it is likely that future development in the wind hazard area will increase, and will increase to the greatest extent in areas in southern Nassau County. However, new development will be built to a code which provides some degree of protection from the affects of high winds.

Future Development Trends – Severe Weather Events: Hurricanes/Tropical Storms, Tornadoes, Winter Storms/Ice Storms

Severe weather events such as hurricanes/tropical storms, tornadoes, and winter storms/ice storms can occur anywhere in Nassau County. These events have certain hazards associated with them.

- For hurricanes/tropical storms, see future development trends for flooding, extreme winds, wave action and erosion hazards.
- For tornadoes, see future development trends for high winds.
- For winter storms/ice storms, see future development trends overview and for coastal erosion, flooding, extreme winds, wave action and erosion hazards.